

L. C. MYERS.
TYPE WRITING MACHINE.
APPLICATION FILED APR. 16, 1909.

947,450.

Patented Jan. 25, 1910.

Fig. 1.

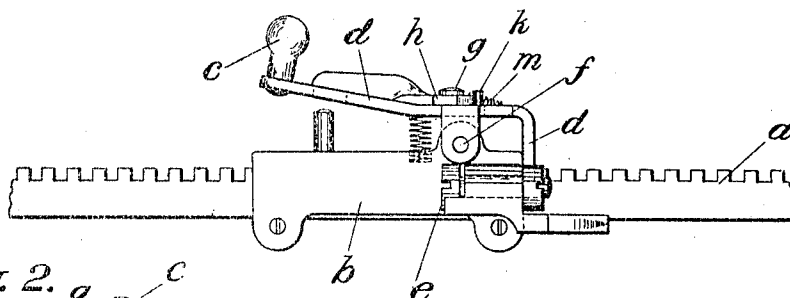


Fig. 2.

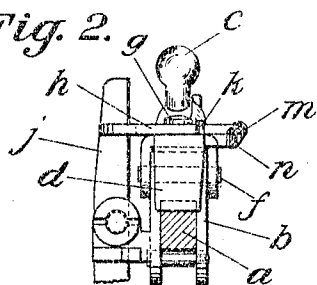


Fig. 5.

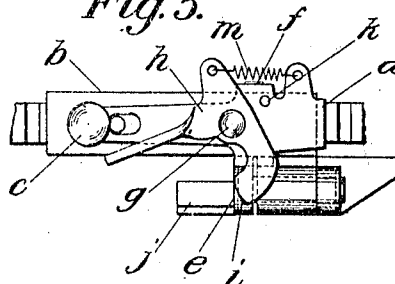


Fig. 3.

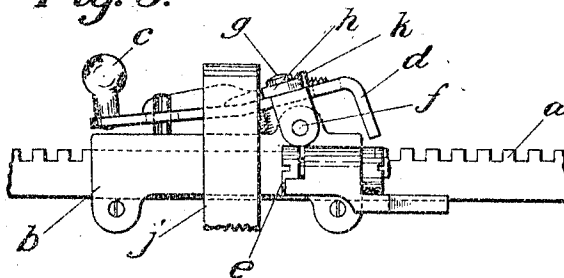
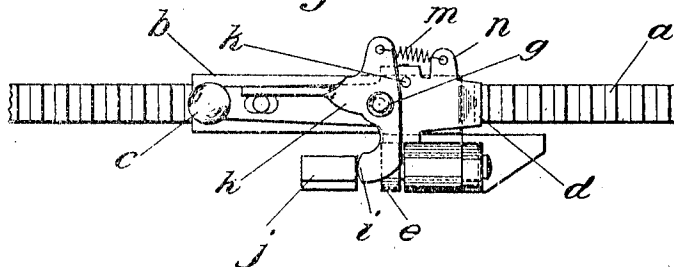


Fig. 4.



WITNESSES:

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UNITED STATES PATENT OFFICE.

LEWIS C. MYERS, OF BROOKLYN, NEW YORK, ASSIGNOR TO ROYAL TYPEWRITER COMPANY, OF NEW YORK, N. Y., A CORPORATION OF NEW JERSEY.

TYPE-WRITING MACHINE.

947,450.

Specification of Letters Patent.

Patented Jan. 25, 1910.

Application filed April 16, 1909. Serial No. 490,245.

To all whom it may concern:

Be it known that I, LEWIS C. MYERS, a citizen of the United States of America, and a resident of the borough of Brooklyn, in the county of Kings, State of New York, have invented certain Improvements in Type-Writing Machines, of which the following is a specification.

Typewriting machines in recent years have been provided usually, if not universally, with a back check or stop applied to the escapement wheel. Its function is to check back-rotation of the escape wheel when the carriage rack is moved from left to right in return of the carriage to initial position. Such back checks, however, have to be adjusted with the utmost nicety in adaptation to the machine to permit of the use of racks of varying pitch adapted to the use of varying type such as "elite", "pica", "English", etc. Difficulties of adjustment also arise when the "lead" or "drop" of the escapement is changed. For these and other reasons, it is highly desirable to dispense with the use of the back check.

Line lock devices are generally used in modern typewriting machines; and unless the escape wheel is controlled by the back check, it happens that when the last letter permitted to be printed by the line lock devices is printed, the usual drive pawl of the escape wheel will operate to advance the escape wheel one step beyond that it should occupy. Consequently, when the carriage is returned to initial position for the commencement of a new line, it will be one letter space out of position with reference to the scale; that is to say, if the margin is set at 10, when the carriage is returned until the pointer indicates 10, it will be found that the first letter of the new line will be printed in the letter space 11,—i. e. one space to the right of the left hand margin of the printed matter. The pointer has therefore been set one letter space out of position with reference to the scale so that the scale and pointer will not form an accurate guide for the correction of errors or the insertion of letters.

Substantially all modern machines are provided with left and right hand margin stops usually mounted on the carriage and cooperating with a frame stop located in the center of the machine.

The present invention makes possible

elimination of the escapement wheel back check and provides a means for setting the movable or carriage stop away from the center or frame stop a distance corresponding with one letter space in excess of the distance at which the carriage stop is always set in the ordinary operation of the machine. Of course, an operator might if she always remembered, set the movable stop such distance away from the center stop but that would require constant attention on her part and subject her to the annoyance and delay of making the adjustment. Such a plan would, therefore be impracticable in a commercial machine.

This invention therefore comprises a gage applied to the margin stop devices in such way that its front or leading edge is in advance of the stop surface of the margin stop. Therefore, when the margin stop is set up to the center stop such edge of the gage (which may be normally in operative position and be capable of yielding) contacting with the center stop determines that the stop surface or movable stop shall be set one letter space farther away from the center stop than it would otherwise be. This gage may be in the form of a yielding bell crank lever pivoted on the top of the frame of the movable or carriage stop, and have applied to it a reaction spring of such tension as that the gage may yield in the operation of the machine so that the carriage will be finally arrested by the regular rigid stop surface of the movable stop. Such would be the required conditions if the gage be located normally in such position as to contact with the center stop. If, however, it be normally out of the path of that stop, the tension of its spring which acts to hold it in normal position could be overcome by the operator when the movable stop is grasped for adjustment so that the gage would be at that time projected into the path of the center stop; and, when adjustment of the movable stop is completed and it is released by the operator, the gage would be returned by its spring (or by gravity) to its normal position out of the path of the center stop. This latter form of the device is not specifically claimed by me since it is a specific form, of my generic invention, invented by Mr. Edward B. Hess.

As an illustration of a typewriting machine to which my invention may be applied, reference is made to Patent No. 875,430

dated December 31, 1907, which illustrates a Royal Standard typewriting machine now well known in the market.

In the accompanying drawing: Figure 1 is a side elevation showing a portion of a carriage stop rack, and a movable carriage stop with a gage thereon: Fig. 2, an end view showing the rack in cross section: Fig. 3, a view similar to Fig. 1 showing, however, the center or frame stop and also showing the latch of the adjustable stop disengaged from the rack so that the stop can be adjusted thereon: Fig. 4, a plan view showing the movable stop with the gage plate adjusted to the center stop: and Fig. 5, a similar view showing how the gage plate has yielded in the operation of the machine to permit the stop surface of the adjustable stop to contact with the center stop.

a is the ordinary carriage stop rack; *b* the frame of the adjustable carriage stop; *c* the handle or finger piece of the spring latch *d* pivoted at *f* on the frame *b* and which may be disengaged from the notches in the rack to permit movement of the stop back and forth thereon; and *e* is the stop surface of the carriage stop. Pivoted at *g* upon the upper face of the latch *d* is a rocking elbow lever gage plate *h*. One arm *i* of the plate projects so as to contact with the center stop *j*. The pin *k*, holds the gage plate in normal position against the reaction of its spring *m* which is connected to an extension of the gage plate and to a projection *n* from the edge of the latch.

I am aware, of course, that my invention may be embodied in a variety of forms which may be readily devised by those skilled in the art, and that the gage instead of being mounted on the movable margin stop may be appropriately designed and mounted on the center or frame stop so that in adjustment of the carriage stop the rigid surface *e* of the margin stop may in adjusting the stop be brought into contact with it. As the center and margin stops are removed an excess distance one from the other when the carriage is returned to initial position, it enables a wider margin for the resetting operation should the carriage be returned slowly or violently. This is inherent in the

operation of the invention and is an added advantage to the machine.

I claim:

1. Margin stop devices comprising a fixed and a movable stop and a gage for automatically setting the stop surfaces a distance away from each other equal to one letter space.
2. Margin stop devices comprising a fixed and a movable stop and a gage mounted on the movable stop for setting the stop surfaces a distance away from each other equal to one letter space.
3. Margin stop devices comprising a fixed and a movable stop and a yielding gage for setting the stop surfaces a distance away from each other equal to one letter space.
4. Margin stop devices comprising a fixed and a movable stop and a yielding gage normally in operative position for setting the stop surfaces a distance away from each other equal to one letter space.
5. Margin stop devices comprising a fixed and a movable stop, a pivoted gage plate mounted on the movable stop, a spring for normally holding it in position to contact with the center stop to facilitate setting the stop surface of the movable stop a distance of one letter space away from the center stop,—the spring being adapted to yield and permit the gage to yield in operation of the machine until the center stop and the stop surface of the movable stop engage.
6. Margin stop devices comprising a fixed and a movable stop and a stop acting as a gage for setting the stop surfaces a distance away from each other.
7. Margin stop devices comprising a fixed and a movable stop and a gage for automatically setting the stop surfaces a distance away from each other.
8. Margin stop devices comprising a fixed and a movable stop and a yielding gage for setting the stop surfaces a distance away from each other.

In testimony whereof, I have hereunto subscribed my name.

LEWIS C. MYERS.

Witnesses:

E. B. HESS,
A. J. SHERIDAN.